| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|----------|------|--------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------|---------|------------------|
| S1 | 2 | "20040057214" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/17 17:31 |
| S2 | 1 | @ad<="20020716" and 'multichip modules' and 'IC' and 'PCB' and 'vapor chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/23 16:10 |
| S3 | 1 | "6429513".PN. | USPAT; USOCR | OR | ON | 2004/11/17 17:32 |
| S4 | 2 | @ad<="20020716" and 'multichip modules' and 'IC' and 'vapor chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 10:43 |
| S5 | 14 | @ad<="20020716" and 'multichip modules' and 'IC' and 'lid' and 'dissipating' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/17 17:41 |
| S6 | 5 | @ad<="20020716" and 'multichip modules' and 'IC' and 'hollow' same 'heat' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/17 17:41 |
| S7 | 31 | @ad<="20020716" and 'multichip modules' and 'hollow' same 'heat' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/17 17:44 |
| S8 | 1 | "6429513".PN. | USPAT; USOCR | OR | ON | 2004/11/17 17:48 |
| S9 | 1 | "6212074".PN. | USPAT; USOCR | OR | ON | 2004/11/17 17:48 |
| S10 | 1 | "6166908".PN. | USPAT; USOCR | OR · | ON | 2004/11/17 17:49 |
| S11 | 1 | "6091603".PN. | USPAT; USOCR | OR | ON | 2004/11/17 17:50 |
| S12 | 81 | @ad<="20020716" and 'heat sink' same 'vapor chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/17 17:50 |
| S13 | 1 | "6429513".PN. | USPAT; USOCR | OR | ON | 2004/11/18 07:40 |
| S14 | 1 | "5880524".PN. | USPAT; USOCR | OR | ON | 2004/11/18 07:40 |

| S15 | 1 | "5915463".PN. | USPAT; USOCR | OR | ON | 2004/11/18 07:40 |
|-----|------|---------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S16 | 6 | @ad<="20020716" and 'MCM' and 'vapor chamber' and 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 10:56 |
| S17 | 81 | @ad<="20020716" and 'vapor chamber' same 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 10:24 |
| S18 | 1 | "6237223".PN. | USPAT; USOCR | OR | ON | 2004/11/18 08:11 |
| S19 | 1 | "6062302".PN. | USPAT; USOCR | OR | ON | 2004/11/18 08:12 |
| S20 | 1 | "5864466".PN. | USPAT; USOCR | OR | ON | 2004/11/18 08:12 |
| S21 | 1 | "5704416".PN. | USPAT; USOCR | OR | ON | 2004/11/18 08:12 |
| S22 | 1 | "5647430".PN. | USPAT; USOCR | OR | ON | 2004/11/18 08:13 |
| S23 | 1 | "6269865".PN. | USPAT; USOCR | OR | ON | 2004/11/18 08:14 |
| S24 | 1 | "6269865".PN. | USPAT; USOCR | OR | ON | 2004/11/18 08:14 |
| S25 | 1 | "6164368".PN. | USPAT; USOCR | OR | ON | 2004/11/18 08:14 |
| S26 | 1339 | @ad<="20020716" and (438/122-123).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:00 |
| S27 | 647 | @ad<="20020716" and (438/125). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:01 |
| S28 | 115 | @ad<="20020716" and (438/55). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:01 |
| S29 | 1496 | @ad<="20020716" and (257/706-707).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:01 |

| S30 | 1483 | @ad<="20020716" and (257/704-705).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/14 16:40 |
|-----|------|--------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S31 | 719 | @ad<="20020716" and (257/675). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:02 |
| S32 | 874 | @ad<="20020716" and (257/717). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 10:12 |
| S33 | 1041 | @ad<="20020716" and (257/721-722).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:02 |
| S34 | 1922 | @ad<="20020716" and (361/704). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:02 |
| S35 | 556 | @ad<="20020716" and (361/709). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:03 |
| S36 | 130 | @ad<="20020716" and (361/711). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:03 |
| S37 | 336 | @ad<="20020716" and (361/717). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:03 |
| S38 | 929 | @ad<="20020716" and (361/719). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:04 |
| S39 | 797 | @ad<="20020716" and (361/690-691).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:04 |
| S40 | 1055 | @ad<="20020716" and (165/104. 33).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:04 |

| S41 | 848 | @ad<="20020716" and (165/104. 21).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 09:04 |
|-----|-----|-------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S42 | 1 | "5751062".PN. | USPAT; USOCR | OR | ON | 2004/11/18 09:35 |
| S43 | 1 | "5930115".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:06 |
| S44 | 1 | "5880930".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:06 |
| S45 | 1 | "5625227".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:06 |
| S46 | 1 | "5345107".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:06 |
| S47 | 1 | "4612978".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:09 |
| S48 | 1 | "5179500".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:09 |
| S49 | 1 | "5325265".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:09 |
| S50 | 1 | "5704416".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:09 |
| S51 | 1 | "5880524".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:10 |
| S52 | 1 | "5915463".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:10 |
| S53 | 1 | "6085831".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:10 |
| S54 | 1 | "6091603".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:10 |
| S55 | 1 | "5880524".PN. | USPAT; USOCR | OR | ON | 2004/11/18 10:11 |
| S56 | 33 | @ad<="20020716" and (257/717). ccls. and 'chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/14 16:42 |
| S57 | 43 | @ad<="20020716" and (257/717). ccls. and 'pipe' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 10:13 |
| S58 | 67 | @ad<="20020716" and 'chamber' same 'heat spreader' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 10:24 |

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|-----|-----|-------------------------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S59 | 206 | @ad<="20020716" and 'pipe' same 'heat spreader' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 10:25 |
| S60 | 9 | @ad<="20020716" and 'heatpipe' same 'heat spreader' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/18 10:25 |
| S61 | 190 | @ad<="20020716" and 'heat pipe' same 'heat spreader' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 10:52 |
| S62 | 1 | "5325265".PN. | USPAT; USOCR | OR | ON | 2004/11/19 09:36 |
| S63 | 1 | "5704416".PN. | USPAT; USOCR | OR | ON | 2004/11/19 09:36 |
| S64 | 0 | @ad<="20020716" and 'multichip modules' and 'IC' and 'stiffener' with 'polermer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 10:47 |
| S65 | 42 | @ad<="20020716" and 'PGA' same 'substrate' with 'polymer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 10:47 |
| S66 | 6 | @ad<="20020716" and 'multichip modules' and 'IC' and 'stiffener' with 'polymer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 10:47 |
| S67 | 0 | @ad<="20020716" and 'heat pipe' same 'heat spreader' and 'substrate' with 'polymer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 10:52 |
| S68 | 50 | @ad<="20020716" and 'heat pipe' and 'substrate' with 'polymer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 10:53 |
| S69 | 112 | @ad<="20020716" and 'MCM' and 'heat sink' and 'substrate' with 'polymer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 11:06 |
| S70 | 3 | @ad<="20020716" and 'MCM' same 'heat sink' same 'substrate' with 'polymer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 10:56 |

| S71 | 0 | @ad<="20020716" and 'MCM' and 'package substrate' with 'polymer' with 'ceramic' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/11/19 11:06 |
|-----|-----|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S72 | 6 | @ad<="20020716" and 'MCM' and 'package substrate' with 'polymer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/15 09:48 |
| S73 | 3 | @ad<="20020716" and 'package substrate' with 'polymer' with 'ceramic' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/14 16:09 |
| S74 | 6 | Alcoe-David.in. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/14 15:31 |
| S75 | 33 | 'Alcoe David J' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/23 16:00 |
| S76 | 22 | 'Alcoe David J' and 'CTE' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/14 15:32 |
| S77 | 1 | "6429513".PN. | USPAT; USOCR | OR | ON | 2005/03/14 15:35 |
| S78 | 419 | @ad<="20020716" and 'package' and 'chamber' and ('coefficient of thermal expansion' or 'CTE') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/14 16:10 |
| S79 | 5 | @ad<="20020716" and 'package' and 'vapor chamber' and ('coefficient of thermal expansion' or 'CTE') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/14 17:17 |
| S80 | 15 | @ad<="20020716" and 'vapor chamber' and ('coefficient of thermal expansion' or 'CTE') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/14 17:18 |
| S81 | 7 | @ad<="20020716" and 'lidded package' and ('coefficient of thermal expansion' or 'CTE') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/14 17:19 |

| S82 | 32 | @ad<="20020716" and ('multichip modules' or 'MCM') and 'substrate' with 'ceramic' with 'fiberglass' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/15 07:19 |
|-----|-----|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S83 | 3 | @ad<="20020716" and ('multichip modules' or 'MCM') and 'heat sink' and 'substrate' with 'ceramic' with 'fiberglass' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/15 07:19 |
| S84 | 1 | "6392890".PN. | USPAT; USOCR | OR | ON | 2005/03/15 07:32 |
| S85 | 1 | "6292369".PN. | USPAT; USOCR | OR | ON | 2005/03/15 07:32 |
| S86 | 1 | "5387815".PN. | USPAT; USOCR | OR | ON | 2005/03/15 07:32 |
| S87 | 1 | "6288900".P N . | USPAT; USOCR | OR | ON | 2005/03/15 07:37 |
| S88 | 1 | "6264882".PN. | USPAT; USOCR | OR | ON | 2005/03/15 07:38 |
| S89 | 1 | "4425195".PN. | USPAT; USOCR | OR | ON | 2005/03/15 07:38 |
| S90 | 1 | "6114048".PN. | USPAT; USOCR | OR | ON | 2005/03/15 07:38 |
| S91 | 1 | "6097602".PN. | USPAT; USOCR | OR | ON | 2005/03/15 07:39 |
| S92 | 1 | "5945217".PN. | USPAT; USOCR | OR | ON | 2005/03/15 07:39 |
| S93 | 14 | @ad<="20020716" and 'MCM' and 'package substrate' same 'lid' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/15 09:48 |
| S94 | 172 | @ad<="20020716" and 'package substrate' same 'lid' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/03/15 09:48 |
| S95 | 7 | 'hong xie' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/23 16:03 |
| S97 | 142 | 'xie' and 'intel' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/23 16:04 |

| S98 | 16 | @ad<="20020716" and 'Heat pipe lid' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/23 16:17 |
|----------|-----|----------------------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S99 | 1 | "5751062".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:10 |
| S10 0 | 1 | "5625227".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:11 |
| S10 1 | 1 | "5365400".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:11 |
| S10 2 | 1 | "5349237".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:11 |
| S10 3 | 1 | "5345107".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:11 |
| S10 4 | 1 | "5329993".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:12 |
| S10 5 | 1 | "5283715".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:12 |
| S10 6 | 1 | "20030128521".PN. | US-PGPUB | OR | ON | 2005/06/23 16:12 |
| S10 7 | 1 | "20020132896".PN. | US-PGPUB | OR | ON | 2005/06/23 16:13 |
| S10 8 | 1 | "5403783".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:13 |
| S10 9 | 1 | "5355942".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:14 |
| S11 0 | 1 | "5323292".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:14 |
| S11 | 1 | "4880052".PN. | USPAT; USOCR | OR | ON | 2005/06/23 16:15 |
| S11 5 | 3 | @ad<="20020716" and 'Heat pipe' and 'sub-chamber' and 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/23 16:20 |
| S11 6 | 6 | @ad<="20020716" and 'Heat pipe' and 'sub-chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/23 16:21 |
| S11 8 | 260 | @ad<="20020716" and 'Heat pipe' same 'support' and 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 13:15 |
| S11 9 | 0 | @ad<="20020716" and 'Heat pipe' same 'chamber' and 'wiring board' with 'ceramic' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/27 12:07 |

| S12 0 | 12 | @ad<="20020716" and 'Heat pipe' same 'chamber' and 'board' with 'ceramic' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/27 12:41 |
|----------|-----|---------------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S12 1 | 168 | @ad<="20020716" and 'PCB' with 'ceramic' and 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/27 12:42 |
| S12 2 | 0 | @ad<="20020716" and 'PCB' with 'ceramic' with 'polymer' and 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 12:28 |
| S12 3 | 39 | @ad<="20020716" and 'PCB' with 'ceramic' same 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/27 12:44 |
| S12 4 | 3 | @ad<="20020716" and 'vapor chamber' and 'PCB' with 'ceramic' and 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/27 12:52 |
| S12 5 | 176 | @ad<="20020716" and 'vapor chamber' and 'heat pipe' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 09:02 |
| S12 6 | 8 | @ad<="20020716" and 'Heat pipe' same 'lid' with 'support' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 08:24 |
| S12 7 | 2 | @ad<="20020716" and 'Heat pipe lid' same 'support' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 13:56 |
| S12 8 | 174 | @ad<="20020716" and 'vapor chamber' same 'support' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 08:26 |
| S12 9 | 1 | "6469893".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:31 |
| S13 0 | 1 | "6381135".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:31 |
| S13 1 | 1 | "6347036".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:31 |
| S13 2 | 1 | "6031716".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:31 |

| S13 3 | 1 | "5549155".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:31 |
|----------|---|---------------|-----------------|----|----|------------------|
| S13 4 | 1 | "5751062".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:37 |
| S13 5 | 1 | "5585671".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:38 |
| S13 6 | 1 | "5345107".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:39 |
| S13 | 1 | "5276289".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:45 |
| S13 8 | 1 | "4649990".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:46 |
| S13 9 | 1 | "5751062".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:47 |
| S14 0 | 1 | "5625227".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:47 |
| S14 1 | 1 | "5625227".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:49 |
| S14 2 | 1 | "5455458".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:49 |
| S14 3 | 1 | "5448108".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:49 |
| S14 4 | 1 | "5373417".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:49 |
| S14 5 | 1 | "5305184".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:49 |
| S14 6 | 1 | "5270572".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:49 |
| S14 7 | 1 | "5625227".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:52 |
| S14 8 | 1 | "5365400".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:52 |
| S14 9 | 1 | "5349237".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:53 |
| S15 0 | 1 | "5345107".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:53 |
| S15 | 1 | "5329993".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:54 |
| S15 2 | 1 | "5291064".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:54 |
| S15 3 | 1 | "5291064".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:54 |
| S15 4 | 1 | "5283715".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:54 |
| S15 5 | 1 | "5268812".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:55 |
| S15 6 | 1 | "5253702".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:55 |

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|----------|-----|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------|----|------------------|
| S15 7 | 1 | "5239200".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:55 |
| S15 8 | 1 | "5198889".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:56 |
| S15 9 | 1 | "5077601".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:57 |
| S16 0 | 1 | "5046552".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:58 |
| S16 1 | 1 | "5023695".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:58 |
| S16 2 | 1 | "5019880".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:58 |
| S16 3 | 1 | "4996589".PN. | USPAT; USOCR | OR | ON | 2005/10/13 08:59 |
| S16 4 | 1 | "4966226".PN. | USPAT; USOCR | OR | ON | 2005/10/13 09:00 |
| S16 5 | 1 | "4996589".PN. | USPAT; USOCR | OR | ON | 2005/10/13 09:00 |
| S16 6 | 1 | "4982274".PN. | USPAT; USOCR | OR | ON | 2005/10/13 09:00 |
| S16 7 | 1 | "4931905".PN. | USPAT; USOCR | OR | ON | 2005/10/13 09:01 |
| S16 8 | 445 | @ad<="20020716" and ('heatpipe' or 'heat pipe') and 'bellow' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 09:03 |
| S16 9 | 214 | @ad<="20020716" and ('heatpipe' or 'heat pipe') same 'bellow' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 09:04 |
| S17 0 | 171 | @ad<="20020716" and ('heatpipe' or 'heat pipe') with 'bellow' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 09:04 |
| S17 1 | 65 | @ad<="20020716" and 'PCB' with ('polytetrafluoroethylene' or 'PTFE') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 12:47 |
| S17 3 | 435 | @ad<="20020716" and 'substrate' with ('polytetrafluoroethylene' or 'PTFE') with 'ceramic' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 12:48 |
| S17 4 | 156 | @ad<="20020716" and 'substrate' with 'polymer' with ('polytetrafluoroethylene' or 'PTFE') with 'ceramic' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 12:49 |

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|----------|-------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S17 5 | 13 | @ad<="20020716" and 'substrate' with 'polymer' with ('polytetrafluoroethylene' or 'PTFE') with 'ceramic' and 'packaging' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 12:49 |
| S17 6 | 10 | @ad<="20020716" and 'substrate' with 'polymer' with ('polytetrafluoroethylene' or 'PTFE') with 'ceramic' and 'packaging' and 'chip' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 12:53 |
| S17 7 | 102 | @ad<="20020716" and ('polytetrafluoroethylene' or 'PTFE') with 'substrate' same 'chip' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 13:15 |
| S17 8 | 170 | @ad<="20020716" and 'CTE' with ('polytetrafluoroethylene' or 'PTFE') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 13:16 |
| S17 9 | 7 | @ad<="20020716" and 'CTE' with 'polytetrafluoroethylene' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 13:18 |
| S18 0 | 1019 | @ad<="20020716" and 'CTE' with 'silicon' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 13:18 |
| S18 1 | 518 | @ad<="20020716" and 'CTE' with 'copper' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/13 13:18 |
| S18 2 | 80 | @ad<="20020716" and 'Heat pipe' same 'support' and 'heat sink' and 'chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 13:56 |
| S18 3 | 29 | @ad<="20020716" and 'Heat pipe' same 'support' and 'VAPOR chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 14:00 |
| S18 4 | 179 | @ad<="20020716" and 'Heat pipe' and 'vapor chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 14:01 |
| S18 5 | 265 | @ad<="20020716" and 'Heat pipe' same 'support' and 'chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 14:00 |

| S18 6 | 113 | @ad<="20020716" and 'Heat pipe' and 'vapor chamber' and 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 14:28 |
|----------|-----|------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S18 7 | 291 | @ad<="20020716" and 'Heat pipe' with 'chamber' and 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 14:38 |
| S18 8 | 19 | @ad<="20020716" and 'Heat pipe chamber' and 'heat sink' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 14:32 |
| S18 9 | 48 | @ad<="20020716" and 'Heat pipe chamber' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 14:32 |
| S19 0 | 309 | @ad<="20020716" and 'Heat pipe' and 'intel' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/12/16 14:38 |
| S19 | 1 | "5880524".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:43 |
| S19 2 | 1 | "5751062".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:43 |
| S19 3 | 1 | "5625227".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:43 |
| S19 4 | 1 | "5365400".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:43 |
| S19 5 | 1 | "5349237".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:44 |
| S19 6 | 1 | "5345107".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:44 |
| S19 7 | 1 | "5329993".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:44 |
| S19 8 | 1 | "5291064".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:44 |
| S19 9 | 1 | "5283715".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:45 |
| S20 0 | 1 | "5268812".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:45 |
| S20 1 | 1 | "5253702".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:45 |
| S20 2 | 1 | "5239200".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:45 |
| S20 3 | 1 | "5198889".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:45 |

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|----------|------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------|----|-----|------------------|
| S20 4 | 1 | "4982274".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:46 |
| S20 5 | 1 | "5780928".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:46 |
| S20 6 | 1 | "5699227".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:46 |
| S20 7 | 1 | "5367765".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:47 |
| S20 8 | 1 | "5291064".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:47 |
| S20 9 | 1 | "4620216".PN. | USPAT; USOCR | OR | ON | 2005/12/16 14:47 |
| S21 0 | 2 | "20050046020" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 06:25 |
| S21 1 | 813 | @ad<="20040120" and (257/675). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 07:03 |
| S21 2 | 4286 | @ad<="20040120" and (257/712-714).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 07:38 |
| S21 3 | 2936 | @ad<="20040120" and (257/715-718).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 06:26 |
| S21 4 | 747 | @ad<="20040120" and (257/728). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 06:26 |
| S21 5 | 4 | (("6670699") or ("4079410")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/01/30 06:27 |
| S21 7 | 20 | @ad<="20040120" and 'heat pipe' same 'coolant' same 'lead' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 07:04 |
| S21 8 | 98 | @ad<="20040120" and ('heat pipe' or 'heat sink') same 'coolant' same 'lead' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 07:41 |

| S22 | 004 | | | | | | |
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| S22 | S21 9 | 1 | "6388317".PN. | USPAT; USOCR | OR | ON | 2006/01/30 07:16 |
| 1 | L _ | 1 | "6323549".PN. | | OR | ON | 2006/01/30 07:16 |
| S22 | 1 | 1 | "6257320".PN. | | OR | ON | 2006/01/30 07:19 |
| S22 | | 1 | "6219243".PN. | | OR | ON | 2006/01/30 07:19 |
| Ccls. USPAT; EPO; JPO; DERWENT; IBM_TDB OR USPAT; EPO; JPO; DERWENT; EPO; JPO; | 1 1 | 725 | | USPAT; EPO; JPO; DERWENT; | OR | ON | 2006/01/30 07:38 |
| Scaling Cols. Co | , | 240 | | USPAT; EPO; JPO; DERWENT; | OR | ON | 2006/01/30 07:38 |
| Ccls. USPAT; EPO; JPO; DERWENT; IBM_TDB US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB USPAT; EPO; JPO; DERWENT; | | 976 | | USPAT; EPO; JPO; DERWENT; | OR | ON | 2006/01/30 07:38 |
| Second With cool\$3 same 'die' USPAT; EPO; JPO; DERWENT; IBM_TDB USPAT; USPAT; | 1 | 1294 | | USPAT; EPO; JPO; DERWENT; | OR | ON | 2006/01/30 09:27 |
| 9 | 1 | 115 | | USPAT; EPO; JPO; DERWENT; | OR | ON | 2006/01/30 08:03 |
| 0 with 'lead' and cool\$3 and ('IC' or 'die' or 'chip') USPAT; EPO; JPO; DERWENT; IBM_TDB S23 90 @ad<="20040120" and 'heat pipe' with ('lead' or wir\$3) and cool\$3 and ('IC' or 'die' or 'chip') | | 1165 | | USPAT; EPO; JPO; DERWENT; | OR | ON | 2006/01/30 08:03 |
| 1 with ('lead' or wir\$3) and cool\$3 and ('IC' or 'die' or 'chip') USPAT; EPO; JPO; DERWENT; IBM_TDB S23 1 "5671804".PN. USPAT; USOCR ON 2006/01/30 08:25 S23 1 "5642776".PN. USPAT; OR ON 2006/01/30 08:25 | | 31 | with 'lead' and cool\$3 and ('IC' or | USPAT; EPO; JPO; DERWENT; | OR | ON | 2006/01/30 10:23 |
| 2 USOCR USOCR ON 2006/01/30 08:25 | 1 | 90 | with ('lead' or wir\$3) and cool\$3 and | USPAT; EPO; JPO; DERWENT; | OR | ON | 2006/07/27 06:30 |
| | | 1 | "5671804".PN. | | OR | ON | 2006/01/30 08:25 |
| | | 1 | "5642776".PN. | | OR | ON | 2006/01/30 08:25 |

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|----------|------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S23 4 | 1 | "5427174".PN. | USPAT; USOCR | OR | ON | 2006/01/30 08:26 |
| S23 5 | 1 | "5346000".PN. | USPAT; USOCR | OR | ON | 2006/01/30 08:26 |
| S23 6 | 1 | "5179500".PN. | USPAT; USOCR | OR | ON | 2006/01/30 08:26 |
| S23 8 | 16 | @ad<="20040120" and 'liquid cooling plate' and ('IC' or 'die' or 'chip') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 08:43 |
| S24 0 | 113 | @ad<="20040120" and 'liquid' with cool\$3 with ('lead' or 'terminal') same ('IC' or 'die' or 'chip') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 09:07 |
| S24 1 | 12 | @ad<="20040120" and 'liquid' with cool\$3 with ('lead' or 'terminal') same ('IC' or 'die' or 'chip') and encapsul\$4 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 08:44 |
| S24 2 | 1 | "5287001".PN. | USPAT; USOCR | OR | ON | 2006/01/30 08:46 |
| S24 3 | 1 | "5216278".PN. | USPAT; USOCR | OR | ON | 2006/01/30 08:47 |
| S24 4 | 1 | "5453641".PN. | USPAT; USOCR | OR | ON | 2006/01/30 08:55 |
| S24 5 | 142 | @ad<="20040120" and ('liquid' with cool\$3 or 'heat pipe') with ('lead' or 'terminal') same ('IC' or 'die' or 'chip') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 09:08 |
| S24 6 | 0 | @ad<="20040120" and 'heat pipe' with 'external terminal' same ('IC' or 'die' or 'chip') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 09:09 |
| S24 7 | 273 | @ad<="20040120" and 'heat pipe' with ('external terminal' or 'lead') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 09:09 |
| S24 8 | . 51 | @ad<="20040120" and 'heat pipe' with ('external terminal' or 'lead') and ('die' or 'chip' or 'IC') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 13:56 |
| S24 9 | 1 | "5671804".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:15 |
| S25 0 | 1 | "5642776".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:15 |

| S25 | 1 | "5427174".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:15 |
|-----------|-----|-----------------------------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| S25 2 | 1 | "5346000".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:15 |
| S25 3 | 1 | "5436501".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:20 |
| S25 4 | 1 | "5349237".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:21 |
| S25 5 | 1 | "5206791".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:21 |
| S25 6 | 1 | "5172213".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:21 |
| S25 7 | 1 | "5172213".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:24 |
| S25 8 | 1 | "5436501".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:25 |
| S25 9 | 1 | "5349237".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:25 |
| S26 0 | 1 | "5105259".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:25 |
| S26 1 | 1 | "4912548".PN. | USPAT; USOCR | OR | ON | 2006/01/30 09:26 |
| \$26 2 | 642 | @ad<="20040120" and (257/715). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 10:00 |
| \$26 3 | 528 | @ad<="20040120" and (257/714). ccls. and coolant | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 09:28 |
| S26 4 | 110 | @ad<="20040120" and (257/714). ccls. and coolant and terminal | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 09:28 |
| S26 5 | 197 | @ad<="20040120" and (257/715). ccls. and 'coolant' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 10:00 |
| S26 6 | 2 | "20020185726" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 10:19 |
| S26 7 | 237 | @ad<="20040120" and 'terminal' same 'liquid' with cool\$3 and ('IC' or 'die' or 'chip') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 10:25 |

| S26 8 | 106 | @ad<="20040120" and 'terminal' same 'liquid' with cool\$3 same ('IC' or 'die' or 'chip') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 12:15 |
|----------|-----|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----|-----|------------------|
| S26 9 | 8 | @ad<="20040120" and 'terminal' same 'liquid cooling' same ('IC' or 'die' or 'chip') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 10:26 |
| S27 0 | 1 | "5598034".PN. | USPAT; USOCR | OR | ON | 2006/01/30 10:30 |
| S27 | 1 | "5491362".PN. | USPAT; USOCR | OR | ON | 2006/01/30 10:31 |
| S27 2 | 1 | "5485037".PN. | USPAT; USOCR | OR | ON | 2006/01/30 10:31 |
| S27 3 | 2 | ("5869883").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/01/30 12:15 |
| S27 4 | 197 | @ad<="20040120" and 'heat pipe' same 'inner' with ('dielectric' or insulat\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 13:57 |
| S27 5 | 123 | @ad<="20040120" and 'heat pipe' with 'inner' with ('dielectric' or insulat\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 14:02 |
| S27 6 | 174 | @ad<="20040120" and insulat\$4 with 'heat pipe' and 'semiconductor' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 14:07 |
| S27 7 | 0 | @ad<="20040120" and 'inner coated' with 'heat pipe' and 'semiconductor' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 14:07 |
| S27 8 | 248 | @ad<="20040120" and 'inner' with 'heat pipe' and 'semiconductor' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 14:08 |
| S27 9 | 0 | @ad<="20040120" and 'inner' with 'diel' with 'heat pipe' and 'semiconductor' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 14:08 |

| S28 0 | 0 | @ad<="20040120" and 'inner' with 'dielectric' with 'heat pipe' and 'semiconductor' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 14:08 |
|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----|-----|------------------|
| S28 1 | 3 | @ad<="20040120" and 'inner' with 'insulation' with 'heat pipe' and 'semiconductor' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 14:12 |
| S28 3 | 248 | @ad<="20040120" and insul\$3 with 'heat' same cool\$3 and ('die' or 'IC' or 'chip') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 14:16 |
| S28 4 | 12 | @ad<="20040120" and insul\$3 with heat' with 'pipe' same cool\$3 and ('die' or 'IC' or 'chip') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/01/30 14:16 |
| S28 5 | 2 | "20050046020" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/05/13 11:12 |
| S28 6 | 0 | ("2005/0046020").URPN. | USPAT | OR | ON | 2006/07/26 17:15 |
| S29 0 | 27 | @ad<="20040120" and cool\$4 with "conductive pipe" same ("IC" or die or chip or power) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/26 17:22 |
| S29 1 | 27 | @ad<="20040120" and "conductive pipe" with cool\$5 same ("IC" or die or chip or power) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/26 17:20 |
| S29 2 | 188 | @ad<="20040120" and cool\$4 with (conductive with (pipe or tupe)) same ("IC" or die or chip or power) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 06:10 |
| S29 3 | 4 | (("6670699") or ("4079410")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/07/27 05:55 |
| S29 4 | 12 | ("4860165" "5986885" "6032355" "6122171" "6219243" "6257320" "6323549" "6388317").PN. OR ("6670699").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2006/07/27 05:57 |

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|-----------|------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----|-----|------------------|
| S29 5 | 355 | @ad<="20040120" and cool\$4 with (conductive with (pipe or tube)) same ("IC" or die or chip or power) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 06:12 |
| S29 6 | 1 | @ad<="20040120" and refrigerant with (coolant or liquid) with (conductive with (pipe or tube)) same ("IC" or die or chip or power) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 06:13 |
| S29 7 | 5 | @ad<="20040120" and refrigerant with (coolant or liquid) same (conductive with (pipe or tube)) same ("IC" or die or chip or power) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 06:15 |
| S29 9 | 100 | @ad<="20040120" and refrigerant with (coolant or liquid) same "heat pipe" and ("IC" or die or chip or power) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 06:27 |
| S30 0 | 4 | (("6713851") or ("4951122")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/07/27 06:27 |
| S30 1 | 1310 | @ad<="20040120" and (257/714). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 07:09 |
| \$30 2 | 2445 | @ad<="20040120" and (361/704). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 06:31 |
| \$30 3 | 396 | @ad<="20040120" and (361/689). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 06:31 |
| S30 4 | 170 | @ad<="20040120" and (361/698). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 06:32 |
| S30 5 | 862 | @ad<="20040120" and (361/699). ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 06:32 |

| S30 6 | 31 | ("20030133268" "2942165" "4012770" "4106188" "4381818" "4995451" "5150274" "5210440" "5262921" "5349498" "5448108" "5455458" "5606201" "5780928" "5880524" "5966291" "5986885" "6016007" "6037658" "6055154" "6141219" "6397450" "6400012" "6414867" "6424531" "6473303" "6535388" "6594149" "6892796" "6937471").PN. OR ("6992887"). URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2006/07/27 06:42 |
|-----------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----|----|------------------|
| \$30 7 | 618 | @ad<="20040120" and (257/714). ccls. and liquid with cool\$4 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/27 07:10 |